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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,587	12/06/2003	Timothy M. Shively	P477	1576

7590 01/22/2007  
PAUL E MILLIKEN  
9061 WALL STREET, N.W.  
MASSILLON, OH 44646-1676

EXAMINER
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KRUE, KEVIN R

ART UNIT	PAPER NUMBER
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1773

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/729,587

**Applicant(s)**

SHIVELY ET AL.

**Examiner**

Kevin R. Krueer

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-7, 10-13 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-7, 10-13 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 16, 2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 6-8, 10-15, and 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim states the adhesive comprise 5-15% fire retardant but does not state what said percentage is based upon (wt, mol%, vol%, etc).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4, 6-8, 10-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/68360 (herein referred to as Valinski) in view of Levchik et al (US 6,569,928) as evidenced by WO96/06885.

Valinski teaches a sunshade comprising first and second PET layers (Figure 4), herein relied upon to read on the claimed "two polymeric film layers." The second base layer may have a light reflecting metal layer provided on the inside surface thereon which partly transmits visible light (page 11, lines 5+). Said light reflecting layer (herein relied upon to read on the claimed "metallized layer") comprises an aluminum layer and transmits 50% or less visible light (example 4 and page 4, lines 5+). Said teaching is herein understood to be sufficiently specific to anticipate the claimed light transmittance in claims 2 and 3. The light-reflecting layer is adhered to the surface of the transparent substrate with an adhesive (see Figures). The second base layer may be provided with a protective layer (Figure 4) that is herein relied upon to read on the claimed scratch resistant coating of claim 10. The PET layers may comprise UV light absorbers (page 11, lines 12+) herein relied upon to read on the claimed UV absorbing material. The layers of said window shade may be adhered via an adhesive that comprises 1-5pbw tetrabromobisphenol-A fire retardant in a thermoset polyester urethane composition (abstract). The structure has a haze of less than 25% (page 7, lines 5+). The dried adhesive may comprise 2-15wt% fire retardant (see example 1). The examiner notes which side faces the sun in use does not distinguish the claimed laminate from the laminate taught in Valinski.

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Valinski does not teach that the polyester layers should comprise a fire retardant. However, Levchik teaches that resorcinol bis(diphenyl phosphate) may be added to polyester compositions in order to improve the fire retardency thereof (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add resorcinol bis(diphenyl phosphate) to the PET layers taught in Valinski. The motivation for doing so would have been to improve the sunshade's fire retardance to meet the desired standard, such as that of the German test method DIN 4102:B2 .

Valinski also does not teach that resorcinol bis(diphenyl phosphate) may be utilized in the polyester urethane adhesive. However, Levchik teaches that resorcinol bis(diphenyl phosphate) may be added to polyester compositions in order to improve the fire retardency thereof (abstract). The benefit of utilizing said fire retardant is they do not migrate to the surface (see Background of the invention). Furthermore, resorcinol bis(diphenyl phosphate) is also known in the art not to migrate to the surface of urethane compositions (see WO96/06885 page 5, lines 10+). Thus, it would have been obvious to utilize resorcinol bis(diphenyl phosphate) fire retardant rather than tetrabromobisphenol-A fire retardant in the thermoset polyester urethane composition taught in Valinski. The motivation for doing so would have been that said phosphate fire retardant is more environmentally friendly. Furthermore, it would have been obvious to one of ordinary skill in the art to vary the amount of fire retardant added in order to optimize the clarity and fire resistance of the composite.

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6. Claims 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/68360 (herein referred to as Valinski) in view of Levchik et al (US 6,569,928), as applied to claims above, and further in view of Fuchs et al (US 5,740,649).

Valinski in view of Levchik is relied upon as above, but does not teach that the sunshade may be perforated. However, Fuchs teaches that it is known in the art to make a foil "sound permeable" by making a multiplicity of small holes/perforations therein (col 5, lines 18+). The perforations may be spaced 1.2mm from each other (col 7, line 47). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to put micro-perforations into the sunshade taught in Valinski at a spacing of 1.2mm. The motivation for doing so would have been to make the sunshade sound absorbing.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/68360 (herein referred to as Valinski) in view of Levchik et al (US 6,569,928), as applied to claims above, and further in view of Jablonka et al (US 4,555,433).

Valinski in view of Levchik is relied upon as above, but does not teach that the sunshade should be formed with a plurality of adjacent cup shaped recesses arranged in the form of a grid. However, Jablonka teaches that forming a element with a plurality of adjacent cup shaped recesses arranged in the form of a grid makes said material sound deadening (abstract). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the sunshade taught in Valinski with a plurality of adjacent cup shaped recesses arranged in the form of a grid. The motivation

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for doing so would have been to provide said sunshade with sound deadening properties.

8. The rejection of claims 1-4, 6, 7, 10, and 21 under 35 U.S.C. 103(a) as being unpatentable over Inanuma et al (US 4,978,181) in view of Levchik et al (US 6,569,928), Mitsuishi et al (US 4,115,617) and WO01/68360 (herein referred to as Valinski) has been overcome by amendment.

### ***Response to Arguments***

Applicant's arguments filed October 16, 2006 have been fully considered but they are not persuasive.

Applicant argues the assignee/Applicant of the present application is also the assignee for the cited Valinski application and that proof can be provided that the material taught in Valinski does not meet the tighter fire standard currently claimed. Said arguments are noted but is not persuasive in view of the lack of evidence provided. The examiner notes that counsel's argument cannot take the place of evidence. The examiner further notes that the claimed FR properties are considered obvious in view of the applied teachings. The examiner never took the position said fire retardant properties were inherent to the laminate of Valinski. Thus, even if said showing was made of record, there is reason to doubt it would be sufficient to overcome the examiner's position.

According to applicant, the position of the UV absorbing PET in the present invention prevents FR material used in the composite from yellowing or bronzing on

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aging. Applicant argues there is no teaching that the PET containing UV absorber must be outside the FR containing layer. The examiner respectfully disagrees. Valinski teaches a PET layer containing a UV absorber adjacent to an adhesive layer containing a fire retardant. The examiner further notes that applicant must provide evidence of unexpected results if its their contention that the claimed laminate exhibits synergistic fire retardant properties as a result of some inventive concept that was not recognized by the prior art. Specifically, Applicant seems to be arguing the claimed composite film in which PET layers containing UV absorbers are used in a specified layer in the composition in relation to the FR containing layers results in an unexpected result.

With respect to Levchick, Applicant argues the reference teaches the use of RDP in polyester compositions containing high charring polymers but does not teach PET compositions containing said fire retardant. The examiner respectfully disagrees. Levchick teaches the composition may comprise a PET (col 2, lines 42+). Furthermore, the examiner notes the cited art incorporated by reference into Levchick teaches the RDP fire retardant utilized in PET compositions (col 2, lines 60+). Thus, the reference clearly contains the teachings for which the examiner relied upon it: the use of RDP as a fire retardant in PET compositions.

According to applicant, Valinski does not teach that improved FR properties can be obtained by using a PET with added fire retardant. The examiner agrees but notes Levchick, not Valinski, was relied upon for such a teaching. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of



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references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's arguments with regards Pengilly and Inamuma have been considered but are considered unpersuasive since neither reference is currently applied as art against the pending claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer  
Patent Examiner-Art Unit 1773